

## Neue und interessante Milben aus dem Genfer Museum XXXI.<sup>1</sup>

### A remarkable sample of archaic soil mites from Kenya (Acari: Oribatida)

by

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#### ABSTRACT

From a soil sample, collected by Dr. V. Aellen and Dr. P. Strinati near the caves of Shimoni (70 km SW of Mombasa) in 1975, a very interesting series of primitive forms of Oribatids have been studied. From the 12 species identified, 8 of them are described as new to science (*Aedoplophora africana*, *Arthrhophophora berlesei*, *Hauseroplophora soniae*, *Strinat acarus aelleni*, *Mirabilozetes dentatus*, *Schelorbates multiplisetosus*, *Tuberemaeus pseudoareolatus*, *Pilobatella xena*). For 3 of the new species a new genus for each of them is erected (*Hauseroplophora* in the family **Protoplophoridae**, *Strinat acarus* in the family **Lohmanniidae** and *Mirabilozetes* in the family **Microzetidae**). The genus *Arthrhophophora* is divided in 2 subgenera: *Arthrhophophora* s. str. (type-species: *paradoxa* Berlese) and *Triplophora* nov. subgen. (type-species: *berlesei* sp. n.).

The two renowned Swiss speleologists Drs. P. Strinati and V. Aellen while carrying out research in Kenya gathered soil samples which subsequently were extracted by Dr. B. Hauser in Geneva. In the course of my research on the Geneva collection I had the opportunity to examine this material. One of the samples proved to be of special importance owing to its large number of primitive Oribatids. This situation has led me to deal with this sample separately in this paper. The extracted material yielded 12 species of which 8 were found to be new to science. For three I was compelled to erect genera, and for one a subgenus.

Among the primitive groups of Oribatida especially the Protoplophoridae Ewing, 1917 are particularly poorly known. The majority of the known species have only been

<sup>1</sup> XX. Contribution to the Oribatid Fauna of SE Asia (Acari, Oribatida). (*Revue suisse Zool.* 84: 247-274, 1977).

collected once, and many have not been collected for several decades. This is why it is a sensation to find in one comparatively small soil sample (a total of Oribatida less than 500) such a large number of Protoplophorids.

This sample was taken near the caves of Shimoni, in the coastal region about 70 km SW of Mombasa (28th November 1975), and the Berlese extraction was effectuated in the Geneva museum.

The fact that I had no opportunity to examine many of the Berlese-types has caused me some difficulty in the determination and separation of the species. Nor was I much better off with the original descriptions and HAMMEN's (1959) notes concerning the species involved. Nevertheless, I decided to describe the new taxa since it is very unlikely that in the case of *Arthrophophora*, relying on Berlese's precision, he might have missed such decisive and very clearly perceptible characteristics as the number and size of claws. I was also supported by the great distance existing between the two taxa. As far as my *Aedoplophora africana* sp. n. is concerned it is again rather improbable that it is congeneric with the representatives of *Prototritia* Berlese, 1916 even on the basis of HAMMEN's remark; on the other hand, GRANDJEAN also, held the view that the two genera are clearly distinct.

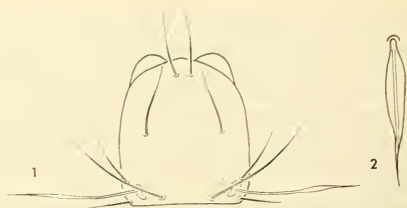
Invaluable is the discovery of *Hauseroplophora* gen. n. since it sheds light on the relation existing between Protoplophorid and Sphaerochthoniid mites.

Besides the above discussed taxa of primitive Oribatida the sample surrendered two *Sphaerochthonius* and one *Haplochthonius* species. The discussion of these three species will be given elsewhere when the elaboration of the material from Kenya is completed.

It is my pleasant duty to acknowledge and sincerely thank the collectors and Dr. B. Hauser for giving me the opportunity to study the material.

#### *Ctenacarus araneola* (Grandjean, 1932)

All the specimens extracted from the soil sample were damaged, still they could be easily determined and identified with the description and figure of GRANDJEAN; merely the sensillus in superior view (Fig. 1) seemed somewhat thickened and bent. Hair *fe* (Fig. 2) is longer than in the original description. However, these differences are insufficient, due to the lack of comparative material, to separate the African specimens. This species has so far been unknown from the Ethiopian region.



FIGS. 1-2.

*Ctenacarus araneola* (Grandjean, 1932).

1: prodorsum, 2: sensillus.

*Aedoplophora africana* sp. n.

Measurements.—Length of aspis: 98  $\mu$ , length of notogaster: 222  $\mu$ , height of notogaster: 174  $\mu$ .

Prodorsum (Fig. 3).—Surface very finely covered with veiled punctation. Rostrum narrowed, almost pointed. Rostral hairs long, tips pointing towards each other, touching in the middle. Other hairs of propodosoma minute, scarcely distinguishable. Sensillus (Fig. 4) only weakly thickened, marginal hairs dense and long.

Notogaster.—Hairs *c* extraordinarily short. Hairs *e* and *f* long reaching the base of much shorter hairs *h* (Fig. 5).

Anogenital region (Fig. 6).—Genital plate much larger, longer and wider than ano-adanal plate. A total of 9 hairs emitted on it, of which 7 emitted more or less along the inner margin, 1 quite far at outer margin separated by a sharp keel. Ano-adanal plates bearing again 9 hairs, in frontal two-thirds along the outer margin 1, in third row 7, posteriorly diagonally 2, sometimes 3.

Legs.—All legs bearing three claws, middle one much stronger. Claw of legs 1, 2 (Fig. 7) and 3 shorter than on leg 4 (Fig. 8). Claw on legs always much shorter than tarsus.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. 11 paratypes: collected at the same locality. Holotype and 7 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 4 paratypes in the collection of the Hungarian Natural History Museum, Budapest (105-PO-76).

Remarks.—The genus *Aedoplophora* Grandjean, 1932 so far included only two species, one originating from North, the other one from Central America. The new species may easily be distinguished from these two by the distribution of hairs on the ano-adanal plate, by the shape of the sensillus and by the chaetotaxy of leg 1. The shape of the sensillus somewhat suggests its relation with the representatives of *Prototritia* Berlese, 1916, or perhaps its identity with one of those species. Since I had no opportunity to examine BERLESE's types, I cannot say for certain, but BERLESE gave in his descriptions the length of claws quite unequivocally, and HAMMEN's (1959) remarks also lead me to believe that my species does not belong to *Prototritia*.

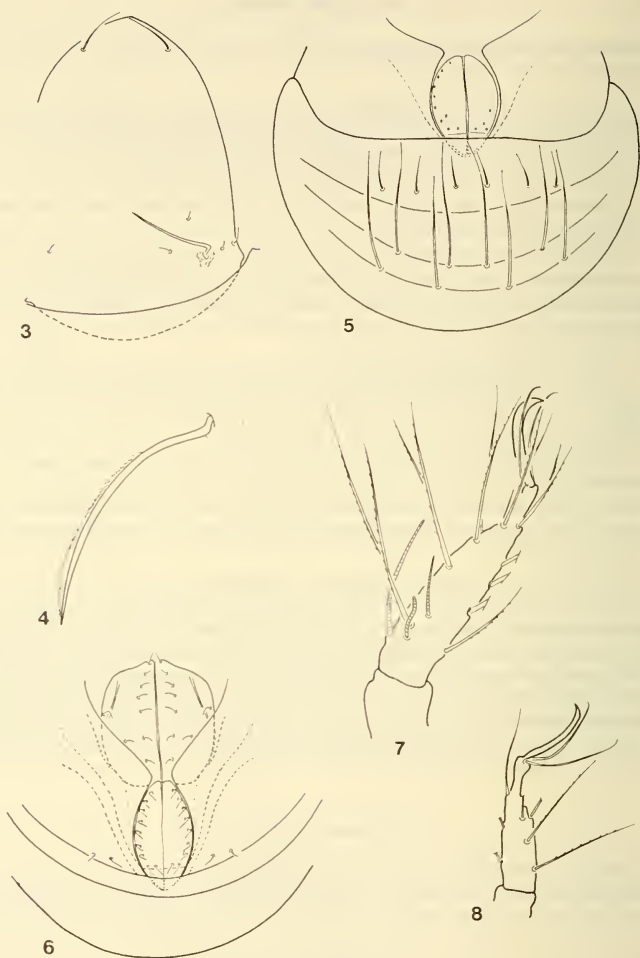
*Arthrophlophora* Berlese, 1910

BERLESE (1910) created this genus for a species from Java (*A. paradoxa*). Now a second species has been found in Kenya which differs from the type-species by two important characters. It is for these reasons that I propose the following new subgenus:

*Triplophora* subgen. n.

Similar to the genus of *Arthrophlophora* Berl., 1910, but all legs bearing 3 claws, middle claw thicker than lateral ones. Claws of legs 1 and 2 shorter than those of leg 3; claws of leg 4 particularly long.

Type-species: *Arthrophlophora (Triplophora) berleseii* sp. n.



FIGS. 3-8.

*Aedoplophora africana* sp. n.

3: prodorsum, 4: sensillus, 5: posterior part of notogaster from ventral view,  
6: genital and anal plates, 7: tarsus of leg II, tarsus of leg IV.

Remarks.—BERLESE's description and figure definitely give the number (2) and shape of the claw. The claws of all legs of the Javanese specimens are longer than the length of the tarsus, on the other hand, in the new species legs 1 and 2 bear much shorter claws than legs 3 and 4.

### *Arthrhophophora* (*Triplophora*) *berlesei* sp. n.

Measurements.—Length of aspis: 168  $\mu$ , length of notogaster: 205  $\mu$ , height of notogaster: 170  $\mu$ .

Propodosoma (Figs. 9-10).—Rostrum broadly rounded. Surface smooth, though interlamellar region displaying 6-7 pairs of weak foveolae. Hairs of propodosoma long, with hair *exp* slightly shorter. Hairs *ro*, *in* and *exa* somewhat thicker than *la*.

Notogaster.—Hairs *c* minute, scarcely discernible. Hairs *e*, *f*, *h* and *ps* strong neotrichia present, hairs long, ciliate, adhering to each other forming a dense network. In rows *e* and *f* (Fig. 12) 20-22 hairs present (I was unable to determine the number of hairs in the other rows). Front margin of posterior body segment adorned with longitudinally running lines.

Anogenital region (Fig. 14).—Genital plate emitting 8 (?) hairs, being broad and angular. Front part of ano-adanal plate with 4 comparatively short hairs; behind it are pronounced neotrichia. The number of hairs are not determinable, as they are entangled with hairs of notogaster.

Legs.—All legs bearing 3 claws. Claws of legs 1 and 2 (Fig. 13) much shorter than tarsus, claws of leg 3, and especially of leg 4 (Fig. 11) extraordinarily long, clearly longer than length of tarsus.

Material arsusined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.XI.1975 Leg. P. Strinati et V. Aellen. 1 paratype collected at the same locality. Holotype deposited in the Museum d'Histoire naturelle, Geneva; the paratype in the collection of the Hungarian Natural History Museum, Budapest. (106-PO-76).

Remarks. — Only one known species has neotrichia in the genus *Arthrhophophora* Berl., 1910, in the family *Protophophoridae*, but from that species the new one is clearly distinguishable as given in the description of the subgenus.

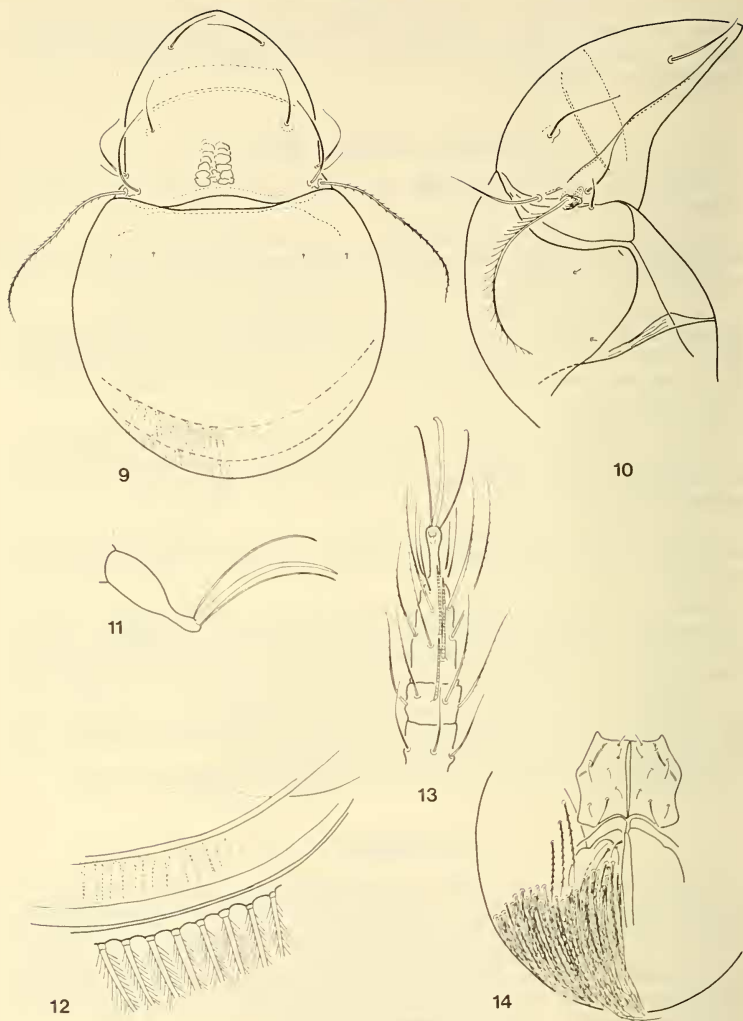
The new species is dedicated to the greatest acarologist of all times A. Berlese.

### *Hauseroplophora* gen. n.

Diagnosis.—Body in "closed" position approximately flattened spherical in outline, propodosoma readily fitting into hysterosoma. In this state the genital plate is entirely covered. Surface of body covered by heavy polygonal sculpture. Majority of hairs on propodosoma and hysterosoma T-shaped, or covered heavily by trifurcate secreted granules. Club of sensillus broad, flat, laminate, margin pinnate. Anal plate small embraced entirely by adanal plate. All legs bearing 3 claws, heterodactylic. Claws simple, approximately as long as, or shorter than, tarsus.

Type-species: *Hauseroplophora soniae* sp. n.

Remarks. — While discussing the family *Protophophoridae*, GRANDJEAN, drew attention to correlations existing between the representatives of this family and the genus *Sphaerochthonius* Berl., 1910. The presently discovered form more than adequately



FIGS. 9-14.

*Arthrhophora (Triplophora) berlesei* sp. n.

9: dorsal view, 10: lateral view, 11: tarsus of leg IV,  
12: posterior part of notogaster, 13: leg II,  
14: genital plate and posterior part of notogaster from ventral view.

supports his supposition, since in "open" state at a quick glance it may easily be taken for a *Sphaerochthonius*. Its sculpture, shape of setae, their distribution etc directly indicate rather a *Sphaerochthonius* than any of the so far known **Protoplophoridae**. When considering the latter, the new genus is closest to the type-genus of the family: *Protoplophora* Berlese, 1910, but this has a simple claw, smooth body and unmodified hairs. To elucidate relationships further investigations are needed, perhaps on these bases the evaluation of Ptyctima may wholly be altered.

I dedicate the new taxon to Dr. B. Hauser, Custos of the Arthropoda Collection in the Natural History Museum of Geneva, who has so much furthered the tropical soil fauna research.

***Hauseroplophora soniae* sp. n.**

Measurements: length: 177-240  $\mu$ , width: 144-176  $\mu$ .

**Propodosoma** (Fig. 15).—Margin of rostrum with some longitudinally running short creases, surface otherwise smooth, polygonal sculpture beginning at rostral setae. A chitinized lath runs parallel with the lateral margin. Propodosomal hairs multi-branched, covered by secretion, and mostly crest-like. Sensillus (Fig. 20) flat, laminate with a petiole running medially as a vein, directed latero-posteriorly.

**Notogaster** (Figs. 17-18).—Entire surface adorned by a polygonal sculpture. Excepting hairs *d*, all hairs (Fig. 19) similar with those of prodorsum. Hairs *d* originating on posterior margin of frontal notogastral segment, small and simple, perceptible only when the six segments are somewhat extended.

**Ventral** (Fig. 16).—Anal plates small, enlarged adanal plates embracing them. Surface also coarsely sculptured. Five pairs of anal and three pairs of adanal hairs present. Genital plate steeply inclined towards inner part of body and very difficult to examine. Approximately triangular in shape.

**Legs**.—All legs with three claws. Middle claw thicker than lateral ones; all of them simple.

**Material examined**.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. 8 paratypes: from the same locality. Holotype and 5 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 3 paratypes in the Hungarian Natural History Museum, Budapest (107-PO-76).

**Remarks**.—The new species sharply differs, as given in the generic description, from any of the so far known species of **Protoplophoridae**.

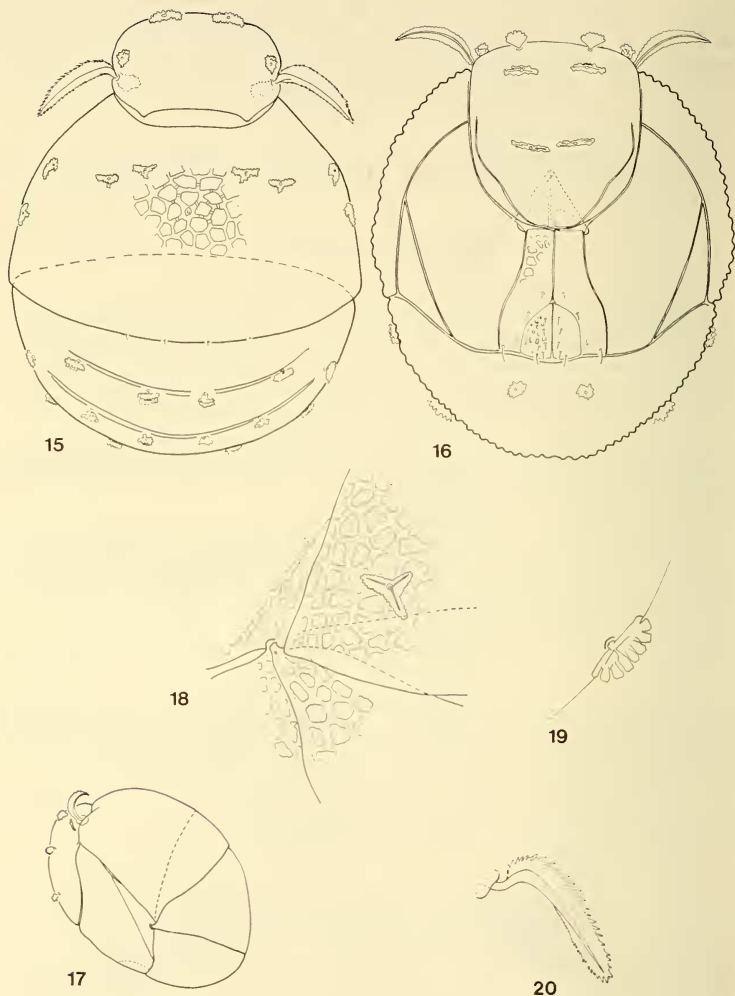
I dedicate this beautiful new species to Dr. Hauser's little daughter.

***Malacoangelia remigera* Berlese, 1913**

A very widely distributed species in the tropics.

***Strinat acarus* gen. n.**

**Diagnosis**.—Body smooth, neither fields of area porosae, fossulae vittiformis, nor any other kind of furrows present. Notogastral hairs simple, neotrichia absent. Epimeral setal formula 3-1-6-4, in place of hairs 3c, neotrichia present. Genital plate



FIGS. 15-20.

*Hauseroplophora soniae* gen. n., sp. n.

15: dorsal view, 16: ventral view, 17: lateral view,  
18: lateral part of notogaster, 19: hair  $f_2$ , 20: sensillus.

without transversal slit. Preanal plate broad, adanal and anal plates fused, bearing 6 equally long hairs lined up in a longitudinal row.

Type-species: *Strinat acarus aelleni* sp. n.

Remarks. — So far no such *Lohmanniidae* was known in which the anal and adanal plates were fused and that the 6 anal hairs were in one line. The distribution of hairs in the genera *Paulianacarus* Bal., 1960 and *Millotacarus* Bal., 1960 is 2-4, but they have an entirely different dorsal sculpture, and have no neotrichia on the epimeres.

I dedicate my new genus to Dr. P. Strinati of Geneva, renowned speleologist, who collected some very valuable soil samples, thereby much furthered the knowledge of soil fauna.

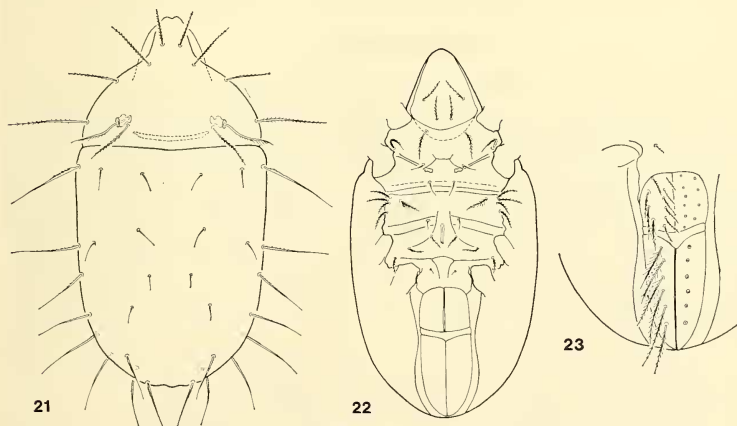
*Strinat acarus aelleni* sp. n.

Measurements: length: 800-858  $\mu$ , width: 405-433  $\mu$ .

Prodorsum.—All prodorsal hairs thin, basal half bearing some ciliae, rostral hairs being the shortest. Sensillus weakly thickened, comb-like with 6-8 lateral branches.

Notogaster (Fig. 21).—All hairs simple, neotrichia absent. Hairs close to mid-body line are short. Hairs  $c_1$ ,  $c_2$ ,  $d_1$ ,  $d_2$ ,  $e_1$ , and  $f_1$  more or less of the same length. Hairs originating close to the side of the body, very similar to those of prodorsum, long, basal half with some ciliae.

Coxisternal region (Fig. 22).—Setae  $1a$ ,  $2a$ ,  $3a$  and  $4a$  on epimeres much shorter than others, scarcely ciliate, or bare. Others of various lengths, but always heavily ciliate, like a «Christmas-tree». Lateral margin of epimere 3 with some neotrichia. Epimeral setal formula 3-1-6-4.



FIGS. 21-23.

*Strinat acarus aelleni* gen. n., sp. n.

21: dorsal view, 22: ventral view, 23: anogenital region.

Anogenital region (Fig. 23).—Construction of plates is given in the generic description. Ten pairs of genital plates, six inner ones significantly shorter than four outer ones. The six anal plates approximately of the same length, with very long ciliae.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. 9 paratypes (of which 4 nymphs): collected at the same locality. Holotype and 3 + 2 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 2 + 2 paratypes in the Hungarian Natural History Museum, Budapest (108 - PO - 76).

Remarks.—The generic diagnosis clearly distinguishes it from any other known related species.

I dedicate the new species to Dr. V. Aellen, Director of the Muesum d'Histoire naturelle, Geneva, for his help in granting us a scholarship, and for collecting the invaluable material.

### *Mirabilozetes* gen. n.

Diagnosis.—Lamellae extraordinarily big, broad, covering the entire surface of the prodorsum, reaching well beyond the rostrum, in the middle partly covering one another. Rostrum broad, rostral hairs emitted far from each other. Lamellar hairs short, not extending from under lamellae. Interlamellar hairs long, originating from lamellae. Tutorium lamellately broadened. Sensillus filiform, reclinate. Coxisternal region with two transversally running ribbon-like apodemes.

Type-species: *Mirabilozetes dentatus* sp. n.

Remarks.—The new genus is related to *Hymenozetes* Bal., 1962 and *Christozetes* D. Kriv., 1975. Nevertheless, it sharply differs from both by its lamellae meeting one another, and that the interlemellar hairs originate on the lamellae.

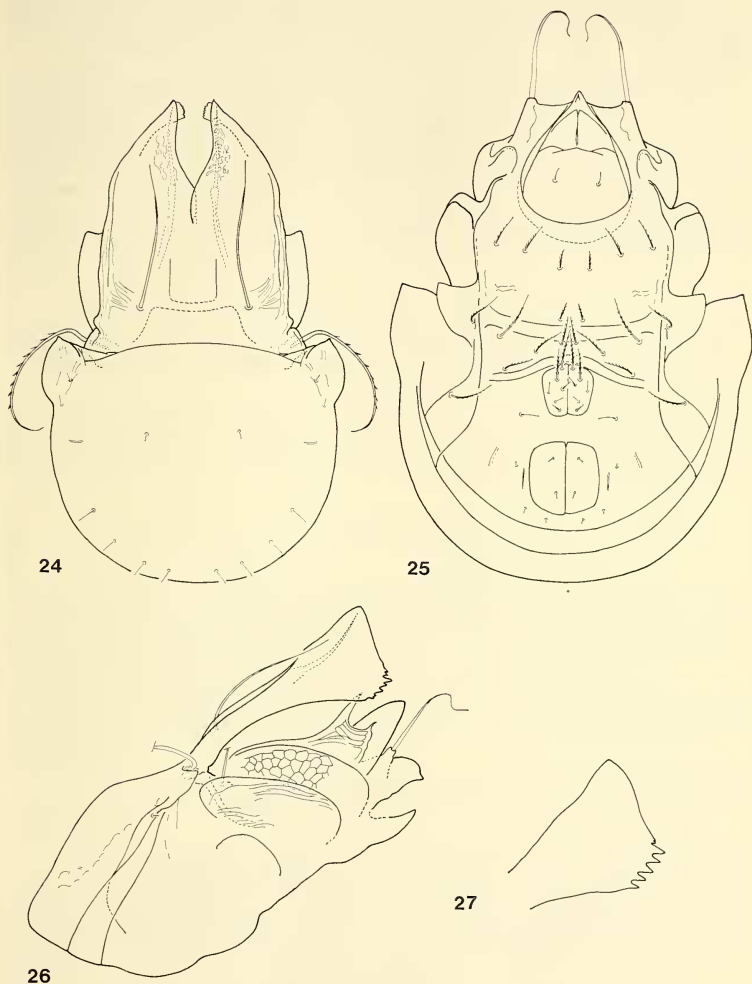
### *Mirabilozetes dentatus* sp. n.

Measurements.—Length: 263-296  $\mu$ , width: 162-203  $\mu$ .

Prodorsum (Fig. 24).—Rostrum broad, in front attenuating into a triangular cone, otherwise straight. Rostral hairs emitted far from one another, laterally each sitting on a chitinized cone. Lamellae very large, extending well beyond rostrum, in lateral view (Fig. 26) and broadened towards the front, margin denticulated with the number and size of denticles variable (Fig. 27). In dorsal view they are facing each other with the apical cusps neavey touching. Behind the apex the inner margins are concave meeting medially and overlapping before the fusion of the plates. Lamellar hairs emitted under lamellae, short, not extending from under lamellae. Interlamellar hairs long, emitted on inner surface of lamellae. Tutorium lamellately broadened, large, in front with one small and one larger, longer cusps. Sensillus long, thin directed latero-distally; one side ciliated.

Notogaster.—Broad and truncate behind. Pteromorphae small, approximately triangular in shape. Surface with 7 pairs of setae different in length.

Coxisternal region (Fig. 25).—Two robust, broad transversal apodemes (ap. sej. and ap. 4) discernible. Pedoectae, especially  $pd_1$  very large, it has a double plate, the front one with surface adorned by a polygonal sculpture, the hind one with longitudinal creases. Epimeral setal formula 3-1-3-3. All being robust, readily discernible, directed towards front part of body. All hairs ciliated.



FIGS. 24-27.

*Mirabilozetes dentatus* gen. n., sp. n.

24: dorsal view, 25: ventral view,  
 26: lateral view, 27: variation of lamellar cuspis.

Anogenital region.—6 pairs of genital, 1 pair of aggenital, 2 pairs of anal and 3 pairs of adanal setae present. Those on genital plate from front towards the back gradually shortening; anal and adanal hairs minute. Hairs  $ad_1$  and  $ad_2$  paraanal, while  $ad_3$  postanal in position. All being very small.

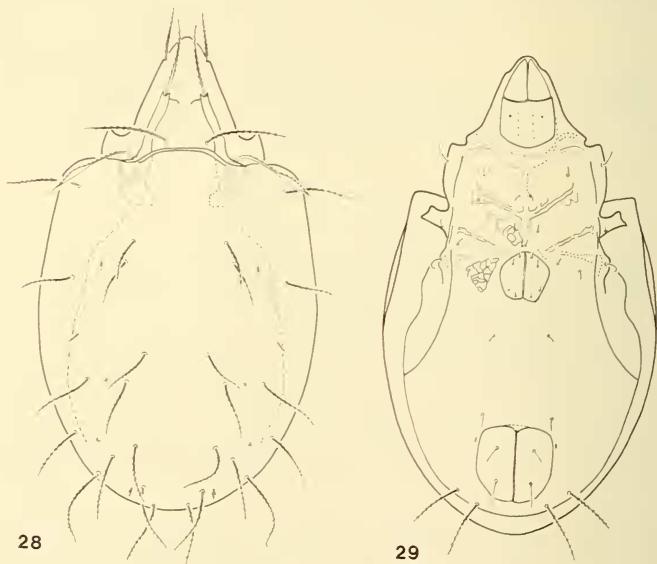
Legs.—Hairs  $u$  on front legs thin, on legs 2-4 thickened and shaped as a blunt spine.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. Six paratypes from the same locality. Holotype and 4 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 2 paratypes in the Hungarian Natural History Museum, Budapest (109 - PO - 76).

Remarks.—The new species may well be separated from all other congeners by the features given in the generic description.

### *Caloppia papillata* Balogh, 1958

This species has so far been unknown from East Africa.



FIGS. 28-29.

*Schelorbates multiplisetus* sp. n.

28: dorsal view, 29: ventral view.

**Scheloribates multiplisetus** sp. n.

Measurements.—Length: 512-557  $\mu$ , width: 293-317  $\mu$ .

Prodorsum (Fig. 28).—On the distal half of rostral hairs the ciliate are dispersed, the other half being ciliated densely. Interlamellar hairs much longer than the lamellar ones. Sensillus fusiform, thickened part comparatively short.

Notogaster.—13 pairs of long ciliate notogastral hairs of various lengths present, e.g. hair *ta* significantly longer than hairs *te* and *ti*.

Ventral side (Fig. 29).—Epimeral setal formula 3-1-3-3. Four pairs of genital, 1 pair of aggenital, 2 pairs of anal and 3 pairs of adanal hairs present. Of the latter, *ad*<sub>3</sub> being the shortest, *ad*<sub>2</sub> and especially *ad*<sub>1</sub> much longer.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. One paratype from the same locality. Holotype deposited in the Museum d'Histoire naturelle, Geneva; paratype in the Hungarian Natural History Museum, Budapest (110 - PO - 76).

Remarks.—The new species differs from *Scheloribates leleupi* Balogh, 1959 by the shape of its sensillus and the number of hairs on notogaster. In all other features it is strikingly similar with BALOGH's species. This fact is a further proof for retaining the complex known as *Oribatula-Scheloribates-Haplozetes*, much debated recently.

**Tuberemaeus pseudoareolatus** sp. n.

Measurements.—Length: 312-346  $\mu$ , width: 197-218  $\mu$ .

Prodorsum.—Lamellae well developed, short, but with definite cusps, from which lamellar hairs are emitted. Rostral hairs thin, ciliated on one side, lamellar hairs thick, densely ciliate all over. Interlamellar hairs (Fig. 32) more or less spatulately broadened, beset with short ciliae. Sensillus (Fig. 33) fusiform and ciliate.

Notogaster (Fig. 30).—Surface ornamented with very large foveolae just to the line of hairs *ms*. Surface behind hairs *ms* with smaller, dot-like foveolae. 10 pairs of thin, smooth notogastral hairs present.

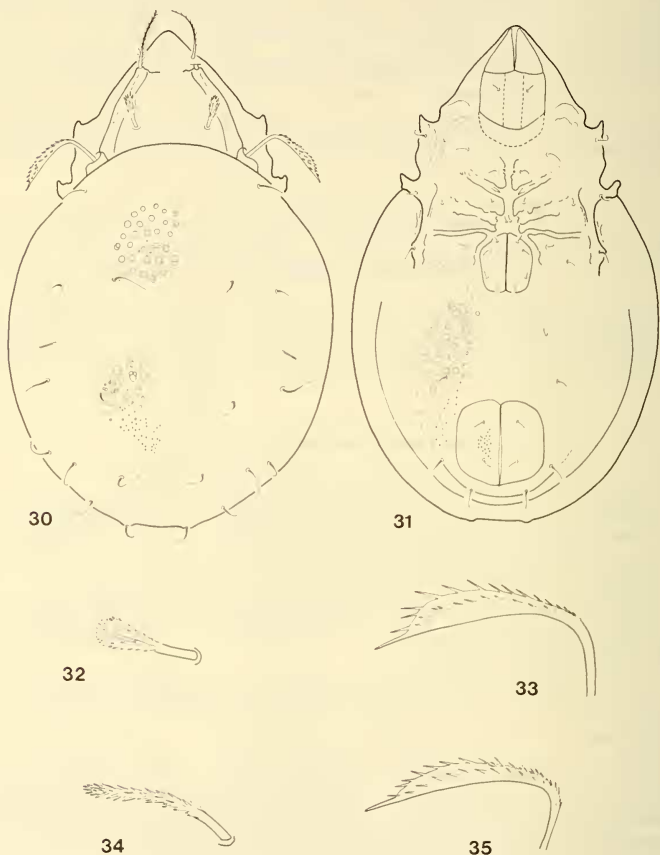
Coxisternal region (Fig. 31).—Apodemes well developed, similar to those of other species within the genus. Epimeres 1-3 with smooth surface, epimere 4 with large foveolae.

Anogenital region.—Medial, longitudinal band between genital and anal plates smooth, surface otherwise with very large foveolae. Surface of genital plate in front with some tiny round foveolae the entire surface of anal plate with longitudinally elongated foveolae. Four pairs of genital, 1 pair of aggenital, 2 pairs of anal and 3 pairs of adanal hairs present, *ad*<sub>3</sub> situated far in front in preanal position.

Legs.—With three claws, strongly heterodactylic.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. 29 paratypes from the same locality. Holotype and 19 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 10 paratypes in the Hungarian Natural History Museum, Budapest (111-PO-76).

Remarks.—A survey of the species belonging in this genus was made by BALOGH in 1970. On the basis of his identification key, the new species may easily be separated from the rest. It comes closest to *T. foveolatus* (Bal., 1958), the type of which I examined, but it differs from the latter by its habitus, smaller size, much larger foveolae, thinner



FIGS. 30-35.

*Tuberemaeus pseudoareolatus* sp. n.

30: dorsal view, 31: ventral view, 32: interlamellar hair, 33: sensillus.

*Tuberemaeus foveolatus* (Balogh, 1958).

34: interlamellar hair, 35: sensillus.

and finer notogastral setae, and especially by the shape of its sensillus (Fig. 35) and interlamellar hairs (Fig. 34). The interlamellar hairs of *T. foveolatus* are of the same thickness and ciliated throughout those of the new species spatulate; sensillus of *T. foveolatus* much narrower than that of the new species; hairs  $r_1$  in *T. foveolatus* reach each other, the same hairs in the new species are far from each other, the distance being about the length of one hair.

***Pilobatella xena* sp. n.**

Measurements.—Length: 297-332  $\mu$ , width: 123-157  $\mu$ .

Prodorsum (Fig. 36).—Rounded in front. Lamellae (Fig. 39) broad, lamellar hairs originating beside the apices on the surface of prodorsum. In front of lamellae one or two well discernible, arcuate transversal lines present. Rostral, lamellar and interlamellar hairs approximatively of same length. Sensillus (Fig. 37) thickened like a spindle, ciliate on both sides.

Notogaster.—Surface densely punctate, together with large, scattered foveolae (Fig. 40). Ten pairs of short and thin notogastral hairs, 4 pairs of sacculi of various dimensions present,  $S_2$  and  $S_3$  particularly small.

Coxisternal region (Fig. 38).—Apodemes very weakly developed, merely a short part of ap. 2 and ap. sej. developed. Epimeral surface with polygonal sculpture, besides some irregularly shaped light foveolae perceptible. Epimeral setal formula 3-1-3-2.

Anogenital region.—Surface between genital and anal plates with some small foveolae. Five (rarely 6) pairs of genital, 3 pairs of aggenital, 2 pairs of anal and 3 pairs of adanal hairs present.

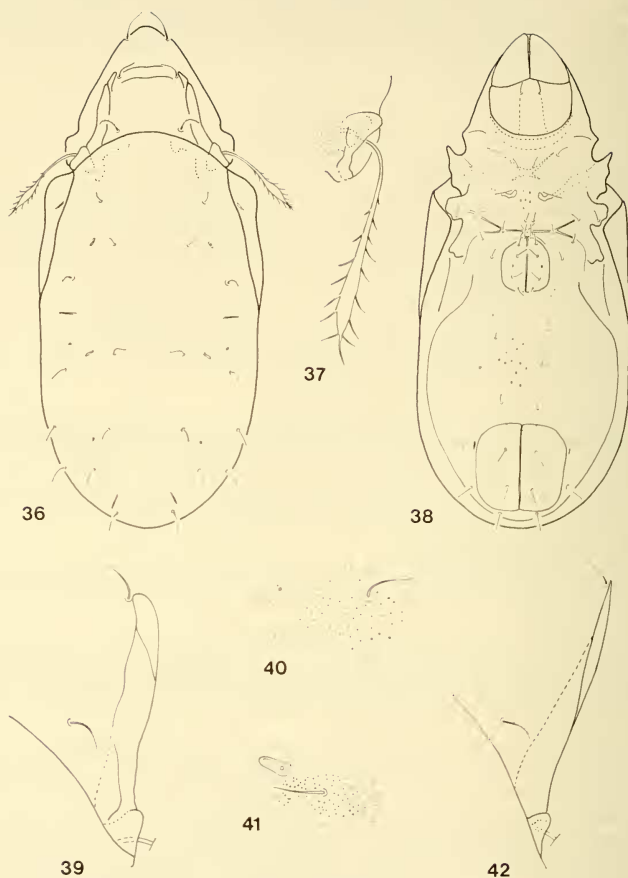
Legs.—Ventral side of femora with crest-like chitinized formation, especially pronounced on leg 2.

Material examined.—Holotype: Kenya: Shimoni, près des grottes 70 km SW Mombasa, 28.IX.1975. Leg. P. Strinati et V. Aellen. 13 paratypes: from the same locality. Holotype and 8 paratypes deposited in the Museum d'Histoire naturelle, Geneva; 5 paratypes in the Hungarian Natural History Museum, Budapest (112 - PO - 76).

Remarks.—The genus *Pilobatella* Bal. et Mah., 1967 is characterized by the one-clawed legs, 10 pairs of notogastral setae, 6 pairs of genital and 3 pairs of aggenital hairs. The new species differs from the two other so far known species in the number of genital hairs (generally 5, but in three specimens the plate bore 6!); on the basis of the 5 pairs of genital hairs it may not belong in a different genus. It is closest to the type-species of the genus: *Pilobatella punctulata* Bal. et Mah., 1967, but may readily be distinguished from it by its general habitus (much smaller and narrower), by the shape of lamellae (Fig. 42) (in type-species suddenly narrowed) and by the dorsal sculpture (Fig. 41) (in *P. punctulata* the foveolae being much smaller and more densely set) as well as by the shape of sacculi and their distance from the hairs.

***Allozetes africanus* Balogh, 1958**

This species has a very wide distribution in the continent of Africa.



FIGS. 36-42.

*Pilobatella xena* sp. n.

36: dorsal view, 37: sensillus, 38: ventral view, 39: lamellae,  
40: hairs *ms* and the punctulation of the notogaster.

*Pilobatella punctulata* Bal. et Mah., 1967.

41: hairs *ms* and the punctulation of the notogaster, 42: lamella.

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